

solely to Seba's admirable figure of the Slender Loris, and this should therefore be taken as the basis of the Linnean name.

The fact that Linnæus many years afterwards referred to his *Lemur tardigradus* a specimen of a *Nycticebus* which he then described, should not be allowed to affect our judgment as to what was the original and essential basis of the name he gave.

Loris tardigradus will therefore be the proper name of the Cinghalese animal, while Dr. Cabrera is of course right in saying that of Mr. Lydekker's two subspecies of *Loris** it is the S.-Indian one which needs the new name. He gives to this that of *lydekkerianus*, the co-types of which would be those referred to by Mr. Lydekker, B.M. nos. 3. 2. 19. 1-2.

Further, I am at issue both with Dr. Cabrera and Mr. Lyon in their contention that the name *menagensis* is to be treated as "*non est*" in the group. For while this was the case on the description of the animal when first published by Nachtrieb without a generic name, its reference to the genus *Nycticebus* by Trouessart † has technically to be taken as a giving of the name *menagensis* to the animal described by Nachtrieb, the name therefore having now validity as *Nycticebus menagensis*, Trouessart. The latter's "?" does not affect the question, as, although with the query, the animal is put into the genus *Nycticebus*, and also without a query by Stone and Rehn ‡ and Lydekker §, on whose authority, again, *menagensis* would antedate the new name *philippinus* given by Dr. Cabrera.

LXXVI.—On a Stridulating-organ in certain African River-Crabs. By W. T. CALMAN, D.Sc., British Museum (Natural History).

IN examining a collection of river-crabs (Potamonidæ) recently brought to the British Museum from the Gaboon by Dr. W. J. Ansorge, I observed in one of the species a stridulating-organ of a type hitherto undescribed. A search among the Potamonidæ of the Museum collection revealed the fact that a similar organ is present, though less perfectly developed, in certain other species more or less closely related to the first.

The species which presents this structure in its fullest

* P. Z. S. 1904, ii. p. 345, pl. xxiii.

† Cat. Mamm. i. p. 63 (1898).

‡ L. c. p. 138.

§ L. c. p. 345.

development appears to be, without doubt, that described by A. Milne-Edwards, and more fully by Dr. de Man and Miss Rathbun, as *Potamon (Potamonautes) africanum**. I have examined three specimens, all males. The largest specimen, from which the following description is mainly taken, measures 80 mm. across the carapace. The stridulating-organ is formed by groups of modified spines on the upper surface of the coxæ of the first and second pairs of walking-legs and on parts of the free branchiostegal edge of the carapace immediately opposed to them. The upper surface of each coxal segment (fig. 2) is strongly convex, and the modified spines occupy its posterior part, which curves downwards towards the ridge separating the upper from the posterior surface. On the first leg the patch of spines measures about

Fig. 1.

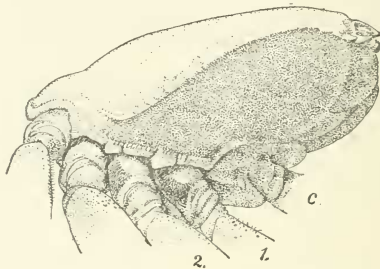


Fig. 1. *Potamon (Potamonautes) africanum*, male, from the right side (natural size). 1 and 2, the first two pairs of walking-legs, on the coxal segments of which are seen the patches of modified spines opposite the lobes on the branchiostegal edge of the carapace.

3.5 × 6.5 mm., and is conspicuous to the naked eye because of the dark brown colour of the closely-set spines. On the second leg the patch is less sharply defined and less conspicuous, owing to the fact that the spines are smaller and more widely spaced. In both cases the spines increase in size from the anterior edge of the patch, where they merge into the scattered setæ of the general surface of the limb, to the posterior edge,

* Descriptions and full synonymy of all the species referred to will be found in Miss Rathbun's monograph, "Les Crabes d'eau douce," Nouv. Arch. Mus. Paris, (4^e sér.) vols. vi.-viii. (1904-1906).

which they overhang slightly. Each spine curves over, so that its distal part is more or less parallel to the surface from which it springs, and the points are all directed backwards.

Fig. 2.

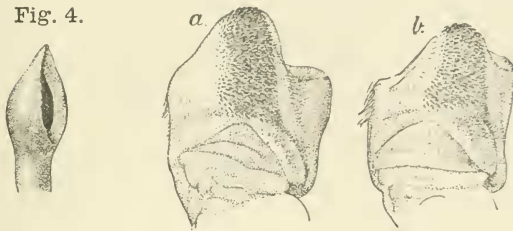


Fig. 3.



Fig. 5.

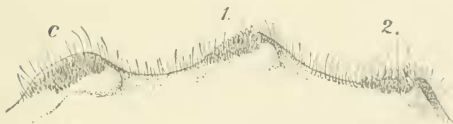


Fig. 2. Upper surface of coxal segments of (a) the first and (b) the second walking-legs (enlarged).

Fig. 3. Branchiostegal edge of carapace, viewed from below. 1 and 2, lobes opposite the coxae of the first and second pairs of walking-legs respectively, bearing groups of stridulating-spines; c, portion of the edge which is opposed to the base of the cheliped and which in this species has no specialized spines.

Fig. 4. One of the branchiostegal stridulating-spines partly cut open to show the cavity within, further enlarged.

Fig. 5. *Potamon (Potamonautes) pobeguini*, female. Branchiostegal edge of carapace from below. Lettering as in fig. 3. In this species stridulating-spines are present opposite the coxa of the cheliped.

The free edge of the branchiostegite, immediately over the spinulose patches of the coxae, is produced downwards into

two square-cut lobes, the distal margins of which nearly touch the surfaces of the coxæ (fig. 1). Each lobe is thickened and is defined in front and behind by a notch, running upwards as a short groove on the surface of the carapace. On the lower surface of each lobe (fig. 3) is a group of very peculiarly modified spines, unequal in size and dark brown in colour. These spines (fig. 4), of which there are ten on the anterior and eight on the posterior lobe in the specimen examined, are cylindrical for a short distance from the base, then dilating into a stout fusiform bulb and terminating in a sharp point. The dilated part is hollow and its cavity is filled with air. In the basal part the cavity contracts to a narrow canal.

When the coxa of either leg is rotated backwards and forwards about the vertical axis of the joint connecting it with the trunk, a hissing or creaking sound is produced in spirit-specimens, especially if the carapace be lightly pressed down so as to bring the branchiostegal spines into contact with those on the coxæ.

The species most nearly approaching *P. africanum* in the degree of development of this organ is one from the Camarons which I identify, not without hesitation, as *Potamon* (*Potamonantes*) *pobeguini*, Rathbun. In this species the chelipeds, as well as the first and second walking-legs, share in the formation of the stridulating-apparatus, which is similarly developed in both sexes. The coxal spines on all three pairs of limbs are much smaller and less closely set than in *P. africanum*, and the areas which they occupy are less sharply defined. The free edge of the branchiostegite is slightly produced downwards between each of the successive pairs of legs, but does not present sharply defined lobes as in *P. africanum*. Viewed from below (fig. 5), the branchiostegal edge above the coxa of the cheliped is seen to carry a patch of numerous and closely-set spines, of which only the larger are distinctly clavate and hollow. The groups of branchiostegal spines corresponding to the first and second walking-legs resemble more nearly those of *P. africanum*, but the spines are much more numerous and present a transition from small, stout, but not clavate spines on the inner side to large, clavate, hollow spines on the outer side. None of the spines have the dark brown colour which renders conspicuous those of *P. africanum*.

In *Potamon* (*Potamonantes*) *floweri*, de Man (of which I have examined the type specimen), in *P. aubryi* (M.-E.), and in another closely allied species from Fernando Po (to which I do not venture to give a name), the apparatus is only represented on the chelipeds, of which the coxæ have on the upper

surface an area closely covered with very short spines, opposed to an oval area of similar spines, very short and not clavate, on the branchiostegite. On the coxæ of the first and second walking-legs and on the corresponding parts of the branchiostegal edge the spines and setæ, which are present in small numbers, present no evidence of modification.

In *Potamon* (*Potamonautes*) *latidactylum*, de Man, of which I have examined the types and numerous other specimens, the coxæ of the chelipeds and of the first two pairs of walking-legs have on the upper surface an oval area which comes into contact with the branchiostegite, but the spines with which it is covered are very minute and scattered. On the branchiostegal edge there are several rows of rather stout spines, often with a slender setiform tip, which are most developed over the bases of the three pairs of limbs just mentioned. In this case it seems very unlikely that the parts can have a stridulating function at all.

All the species mentioned above belong to "Group C" (of which *P. africanum* is the type) in Miss Rathbun's classification of the subgenus *Potamonautes*. The other West-African species referred to this group, *P. pelii* (Herklots) and *P. decazei* (A. M.-E.), are unknown to me, unless, indeed, the specimens which I have referred to *P. pobeguini* should really bear the name of Herklots's species. I regret especially that I have had no opportunity of examining any of the Oriental species which Miss Rathbun places in the same group. In no other members of the Potamonidæ have I found so far any indication of a similar apparatus.

Although it remains to be demonstrated by observation of the living animals that the structures here described are actually used in the production of sound, it can hardly be doubted that this will prove to be the case at least in *P. africanum* and *P. pobeguini*. So far as I am aware, no stridulating organs have hitherto been described in any members of the Potamonidæ. According to the summary given by Ortmann (Bronn's 'Thierreich,' Crustacea, ii. p. 1245), the only Brachyura known to stridulate or possessing organs supposed to have this function are species of *Matuta*, *Ozius*, *Platyonychus*, *Ocypode*, *Macrophthalmus*, *Sesarma*, and some other Grapsidæ. In all these cases, however, and in the few Crustacea of other groups (Palinuridæ, Paguridea) which have stridulating-organs, the arrangement is very different from that described here. The main portion of the apparatus consists of ridges or granules on the surface of the exoskeleton, never of modified spines, although the latter are commonly found in the stridulating-organs of the Arachnida.

LXXVII.—*On the Moths collected during the Cruise of the 'Valkalla' during the Winter 1905-6 by Mr. E. G. B. Meade-Waldo.* By Sir GEORGE F. HAMPSON, Bart., F.Z.S., &c.

IN the following paper I have in the first place given a complete list of the moths collected on the various oceanic islands touched at under their several localities, as the fauna of these small islands is of special interest, and in the second part described the new species collected at various continental localities in their systematic order. The specimens collected have all been presented by the Rt. Hon. the Earl of Crawford, K.C.G., to the British Museum.

S. TRINIDAD.

Noctuidæ.

ACRONYCTINÆ.

Eriopus floridensis, Guen. Noct. ii. p. 292 (1852).

4 ♂, 1 ♀.

CATOCALINÆ.

Remigia repanda, Fabr. Ent. Syst. iii. (2) p. 49 (1792).

1 ♀.

Pyralidæ.

CRAMBINÆ.

Culladia niphosella, sp. n.

Pure white; palpi cupreous brown at sides; antennæ tinged with brown; fore legs fuscous brown in front. Fore wing with the costal edge blackish towards base; a more or less distinct cupreous yellow triangular mark on costa before apex; three black points on middle of termen.

4 ♂, 1 ♀ type. *Exp.* 10 mm.

PYRAUSTINÆ.

Zinckenia perspectalis, Hübn. Schmett. Eur. Pyr. fig. 101 (1827).

1 ♂, 5 ♀.

Pilocrocis sp.

1 ♀ in bad condition.

Condylorrhiza vestigialis, Guen. Delt. & Pyr. p. 321 (1854).

1 ♂.

COMORO IS.

Syntomidæ.

Euchromia formosa, Guér. Icon. R. Anim., Ins. p. 501,
pl. lxxxiv. bis, fig. 10 (1829).

Mayotta, 2 ♀.

Arctiadæ.

LITHOSIANÆ.

Ilema stictigrama, sp. n.

♂. Head and thorax grey-brown; abdomen pale ochreous brown. Fore wing grey, tinged with purplish brown; the postmedial line represented by a small black spot on costa and a very oblique series of four spots from below vein 6 towards termen to inner margin. Hind wing pale yellowish, the termen slightly tinged with brown.

Mayotta, 1 ♂ type. *Exp.* 22 mm.

Noctuidæ.

CATOCALINÆ.

Cylogramma latona, Cram. Pap. Exot. i. p. 20, pl. xiii. B (1779).

Mayotta, 1 ♂.

Cylogramma fluctuosa, Drury, Ins. Exot. ii. p. 24, pl. xiv. fig. 1 (1770).

Mayotta, 2 ♂, 2 ♀.

Spirama pardus, Guen. Noct. iii. p. 205 (1852).

Mayotta, 3 ♂, 1 ♀.

Ophiusa ebenani, Saalm. Lep. Madag. p. 464, pl. ix. fig. 153 (1891).

Mayotta, 1 ♀.

Chalciope hyppasia, Cram. Pap. Exot. iii. pl. ccl. E (1779).

Mayotta, 2 ♂.

Remigia repanda, Fabr. Ent. Syst. iii. (2) p. 49 (1792).

Mayotta, 1 ♂, 1 ♀.

Remigia frugalis, Fabr. Syst. Ent. vi. p. 601 (1775).

Mayotta, 2 ♀.

Remigia undata, Fabr. Syst. Ent. vi. p. 600 (1775).

Mayotta, 2 ♀.

ERASTRIANÆ.

Naranga diplogramma, sp. n.

♀. Head and thorax brownish white slightly irrorated with fuscous; pro- and mesothorax with slight paired dark spots; tarsi banded with brown; abdomen pale brownish, with indistinct brown dorsal bands. Fore wing brownish white, slightly irrorated with fuscous; antemedial line indistinct, double, oblique, irregularly waved, a black striga beyond it across submedian fold; a round grey spot in end of cell, defined by black at sides, and with small black spot above it on costa; a greyish streak beyond lower angle of cell; postmedial line double, black, filled in with white, bent outwards below costa, then irregularly waved, excurved to vein 4, then oblique to submedian fold and bent outwards again; subterminal line slight, whitish, defined by olive-brown on inner side, crossed by an oblique blackish shade from apex, and with slight blackish marks beyond it in the interspaces; a terminal series of fine black striæ; cilia grey, irrorated with black and with fine black line at middle. Hind wing fuscous brown; cilia ochreous, with brownish line near base and brownish tips; the underside whitish, thickly irrorated with brown, a slight discoidal spot and sinuous postmedial line.

Mayotta, 1 ♀ type. *Exp.* 18 mm.

Lymantriadæ.

Porthesia producta, Wlk. P. Z. S. 1863, p. 168.

Mayotta, 1 ♀.

Sphingidæ.

Cephonodes hylas, Linn. Mant. p. 539 (1771).

Mayotta, 1 ♀.

Geometridæ.

BOARMIANÆ.

Tephрина catalaunaria, Guen. Phal. ii. p. 108 (1857).

Mayotta, 3 ♂, 3 ♀.

GEOMETRINÆ.

Thalassodes quadraria, Guen. Phal. i. p. 360 (1857).

Mayotta, 1 ♀.

Hemithea albistrigula, Warr. Nov. Zool. iv. p. 39 (1897).

Mayotta, 1 ♀.

Pyralidæ.

SCHÆNOBIANÆ.

Scirpophaga gilviberbis, Zell. Mon. Chil. & Cramb. p. 2 (1863).

Mayotta, 2 ♂.

ANERASTIANÆ.

Enosima vectiferella, Rag. Rom. Mém. viii. p. 391, pl. xlii. fig. 24 (1901).

Mayotta, 1 ♀.

ENDOTRICHINÆ.

Endotricha vinolentalis, Rag. Ann. Soc. Ent. Fr. 1891, p. 525.

Mayotta, 1 ♂, 1 ♀.

HYDROCAMPINÆ.

Bradina admictalis, Wlk. xviii. 665 (1859).

Mayotta, 1 ♂.

Zebronia phenice, Cram. Pap. Exot. iv. p. 185, pl. cclxxxii. fig. G (1783).

Mayotta, 1 ♀.

PYRAUSTINÆ.

Zinckenia fascialis, Cram. Pap. Exot. iv. pl. cccxcviii. fig. O (1783).

Mayotta, 1 ♂.

Lygropia quaternalis, Zell. Lep. Caffr. p. 44 (1852).

Mayotta, 1 ♂.

Nacoleia argyropalis, sp. n.

♂. Bright yellow; palpi white, with dark brown bars at extremities of first and second joints, the third joint and frons brown; shoulders with brown streaks; pectus, legs, and ventral surface of abdomen white, the fore tibiæ with black band at extremity. Fore wing with the costal area tinged with rufous to beyond middle; a dark brown sub-basal striga from costa; a straight erect antemedial line conjoined to a brown spot with silvery-white centre in cell; a brown discoidal bar with silvery-white line in middle; a slightly sinuous postmedial brown line erect from costa to vein 2, then retracted to lower end of discoidal bar, and erect to inner margin; a brown terminal line; cilia yellow. Hind wing with brown discoidal bar; postmedial line fine, slightly sinuous, erect to vein 2, then retracted to lower angle of cell and oblique to inner margin; a brown terminal line; cilia yellow, with a slight brown line near base.

Mayotta, 1 ♂ type. *Exp.* 20 mm.

Sylepta melanopalis, sp. n.

♀. Fuscous brown, with a slight cupreous gloss; palpi white at base and with the third joint white; sides of frons with slight whitish streaks; pectus and legs white, the fore tibiæ with black band at extremity; abdomen with slight white segmental lines and the ventral surface white. Fore wing with dark antemedial line, with white band on inner side, excurved from costa to submedian fold, then slightly incurved; a black spot in middle of cell and discoidal lunule, with white spot before the former and rather quadrate spot between them; postmedial line dark, with white band on outer edge expanding into a triangular patch towards costa

and small round spot below vein 2, incurved from costa to vein 5, excurved to vein 2, then retracted towards lower angle of cell and again excurved; cilia whitish, with a dark line through them. Hind wing with oblique blackish discoidal bar; a dark postmedial line, with white band on its outer edge, bent outwards between veins 5 and 2, then retracted towards angle of cell and slightly angled outwards at vein 1; cilia whitish, with a dark line through them; the underside whitish, with the terminal area fuscous, the discoidal lunule and postmedial line strong.

Mayotta, 1 ♀ type. *Exp.* 24 mm.

Glyphodes indica, Saund. Trans. Ent. Soc. 1851, p. 163, pl. xii. figs. 5, 6, 7.

Mayotta, 1 ♂.

Glyphodes picticaudalis, sp. n.

♂. Head, tegulæ, and base of patagia yellowish suffused with metallic bronze; thorax white; palpi blackish, white at base; pectus and legs white, the fore tibiæ blackish at extremity; abdomen silvery white, with slight yellowish segmental dorsal lines, the extremity tinged with yellow, with fuscous and golden bands on penultimate segment and anal tuft. Fore wing white, the costal area and base of cell golden bronze, with raised scales; a small round bronze spot in middle of cell and elliptical discoidal patch from costal area to below cell with some silvery scales on it; an obsolescent brownish subterminal line with small black spots on it above veins 5 and 1. Hind wing white, with elliptical bronze discoidal patch extending to below cell; a brownish subterminal line, slightly sinuous and not reaching costa or inner margin.

♀. Abdomen without the fuscous and golden bands at extremity.

BR. E. AFRICA, Unyoro, Singema (*Betton*), 1 ♂ type; UGANDA, Kisingo (*Christy*), 1 ♂; COMORO IS., Mayotta (*Meude-Waldo*), 1 ♀. *Exp.* 28-32 mm.

Glyphodes mayottalis, sp. n.

Head and thorax rufous mixed with black; palpi white at base, then rufous with black bands; sides of frons, back of head, and tegulæ with white streaks; patagia with broad white upper edge; abdomen rufous, suffused with fuscous at middle and with slight white segmental lines and dorsal

streak; pectus, legs, and ventral surface of abdomen white. Fore wing rufous, with some black suffusion at base; a white streak on base of inner margin to the obliquely curved white antemedial line arising from below costa; an oblique wedge-shaped nacreous patch defined by black and with excised upper edge from subcostal nervure at middle of cell to submedian fold; a slight discoidal lunule with greyish centre and black patch below it, with grey scales on it; a white streak on medial part of inner margin; a large lunulate nacreous patch defined by black beyond the cell from below costa to vein 2; postmedial line greyish, defined on each side by black, expanding into a white wedge-shaped spot below costa, then slightly curved; a diffused black bar before middle of termen, which is grey; a fine black terminal line; cilia rufous. Hind wing hyaline white, with broad rufous terminal band with black line on its inner edge; a diffused black bar before middle of termen; a fine black terminal line; cilia rufous.

Mayotta, 1 ♂, 2 ♀. *Exp.* 30 mm.

Agathodes chrysalis, sp. n.

Head and thorax olive-grey; palpi white at base and tips; sides of frons, tegulae, upper edge and tips of patagia streaked with white; pectus and legs white; abdomen white, with dorsal patches of rufous on basal segments, the extremity tinged with olive in male and with rufous in female, the ventral surface white, the penultimate segment rufous. Fore wing pale olive; a white fascia on costa to beyond middle; a semicircular golden-fulvous patch with white edges on apical part of costa; the terminal area golden fulvous from vein 5 to inner margin; an indistinct very oblique line defined by white on inner side from costa before middle to submedian fold, then an inwardly oblique white line to inner margin; a narrow whitish discoidal lunule defined at sides by black, with white bar before it and orange spot defined by diffused black beyond it; a very oblique white band with diffused black on its inner side from below angle of cell to inner margin; cilia red, with fine white line at base from apex to vein 4, then yellow. Hind wing semihyaline golden yellow. Underside of fore wing golden yellow.

MAURITIUS, Curepipe (*Tulloch*), 1 ♀; COMORO IS., Mayotta (*Meade-Waldo*), 1 ♂, 2 ♀ type. *Exp.* 40 mm.

Hyalobathra argentiflalis, sp. n.

♂. Orange-yellow; palpi with crimson spots on first and

second joints, at tips of hair on second joint, and on maxillary palpi; frons above, tegulæ, shoulders, base of patagia, meso- and metathorax with crimson spots; pectus and legs white, the fore femora and tibiæ yellow in front, the tarsus with black bands at base and near tips; abdomen with crimson subdorsal spots, the extremity tinged with crimson and with white line on penultimate segment, the ventral surface white. Fore wing with subbasal crimson points on costa and inner margin; a slightly sinuous crimson antemedial line; a slight silvery discoidal lunule edged with rather diffused crimson; postmedial line fine, crimson, sinuous, excurved from costa to vein 2, then retracted to lower angle of cell and again somewhat excurved; a crimson subterminal band with silvery line on it and minutely waved edges, angled inwards at discal and submedian folds; a fine crimson terminal line; cilia yellow at base, with crimson medial line and white tips. Hind wing with fine crimson postmedial line, oblique from below costa to vein 2, then retracted to lower angle of cell and oblique to inner margin; a crimson terminal band with minutely waved silver line on it, its inner edge curved inwards below apex and at submedian fold; cilia yellow at base, with crimson medial line and white tips.

Mayotta, 1 ♂ type. *Exp.* 20 mm.

Pachyzancla bipunctalis, Fabr. Ent. Syst. iii. (2) p. 227 (1798).

Mayotta, 1 ♀.

Pionea holoxuthalis, sp. n. (*vide* Aldabra).

Mayotta, 1 ♀.

Pyrausta incoloralis, Guen. Delt. & Pyr. p. 333 (1854).

Mayotta, 1 ♂, 2 ♀.

ALDABRA IS., ASSUMPTION, AND GLORIOSA.

Arctiadæ.

ARCTIANÆ.

Utetheisa lactea, Butl. Rep. Zool. Coll. 'Alert,' p. 577 (1884).

Subsp. 1.—Differs from the typical form from the Farquhar Is. in having the scarlet spots of fore wing strongly developed, the black spots more or less obsolete.

Gloriosa, 2 ♂, 2 ♀; Assumption, 1 ♂.

Subsp. 2.—Differs from the typical form in having both the black and scarlet spots of fore wing well developed.

Aldabra, 2 ♀.

Noctuidæ.

AGROTINÆ.

Chloridea assulta, Guen. Noct. ii. p. 178 (1852).

Assumption, 1 ♂, 1 ♀.

Euxoa microtica, sp. n.

♂. Head and thorax red-brown mixed with grey-white; palpi with patches of black on first and second joints; frons with lateral black patches; tegulæ black-brown at base; pectus mostly white; tarsi black ringed with white; abdomen white dorsally, tinged with ochreous, ventrally slightly irrorated with brown. Fore wing red-brown, largely suffused with white, the veins with black streaks; subbasal line represented by a black striga from costa and a small quadrate spot below the cell, with pale rufous patch beyond it and another above inner margin before the antemedial line, which is angled outwards below costa and in cell, excurved in submedian interspace, then almost obsolete; claviform moderate, fuscous defined by black; orbicular and reniform with fuscous centres and pale annuli defined by black, the former small, round; a curved medial shade; postmedial line indistinct, bent outwards below costa, then dentate and produced to black points on the veins, incurved at discal fold and oblique below vein 4, some black points beyond it on costa; subterminal line indistinct, pale, defined on inner side by small dentate red-brown marks, angled outwards at vein 7 and dentate at veins 4, 3, 2; a fine black terminal line; cilia pale rufous. Hind wing white, the veins and a terminal line brown; cilia ochreous, white at tips.

Assumption, 1 ♂. *Exp.* 26 mm.

Allied to *E. segetum*.

ACONTIANÆ.

Acontia malvæ, Esp. Schmett. iv. (2) p. 63, pl. cxcv. fig. 4 (1788).

Gloriosa, 1 ♀.

CATOCLINÆ.

Ophiusa algira, Linn. Syst. Nat. i. p. 836 (1766).

Gloriosa, 3 ♂, 3 ♀.

Grammodes delta, Boisd. Faun. Ent. Mad., Lép. p. 105,
pl. xiii. fig. 1 (1833).

Aldabra, 1 ♂.

Chalcriope hyppasia, Cram. Pap. Exot. iii. pl. ccl. E (1779).
Gloriosa, 1 ♂.

ERASTRIANÆ.

Tarache rachiastis, sp. n.

Frons with corneous ridge across the middle and large plate below it.

♂. Head and thorax creamy white; palpi at tips and sides of frons tinged with brown; antennæ fuscous; tibiæ and tarsi banded with brown; abdomen creamy white, with pale brown dorsal bands. Fore wing creamy white; subbasal line represented by a slight ochreous striga from costa; ante-medial line ochreous, slightly curved, arising from a small brown spot on costa; medial line with slight brown spot on costa and ochreous line from it to a red-brown band from lower angle of cell to inner margin; postmedial line represented by a small brown spot on costa, then excurved and with brown spot on its inner side at vein 5, then bent inwards to lower angle of cell, represented by a whitish line with blackish scales on its inner edge, angled outwards at vein 1, followed by a diffused grey and red-brown band from apex to inner margin, leaving some cream-colour on termen; some black-brown points on termen at apex, middle, and above tornus; cilia with some grey and brown at apex, middle, and tornus. Hind wing ochreous white, with some diffused brown on terminal area from apex to vein 2 and towards tornus.

♀. Thorax and fore wing yellower, the latter with the markings more distinct and more olive in colour on the yellow area.

Aldabra, 1 ♂, 1 ♀ type. *Exp.* 20 mm.

Sphingidæ.

Charocampa celerio, Linn. Syst. Nat. i. p. 491 (1758).

Gloriosa, 1 ♀.

Charocampa aurora, Roths. Nov. Zool. ix., Suppl. p. 812 (1903).

Gloriosa, 4 ♂, 1 ♀.

Cephonodes hylas, Linn. Mant. p. 539 (1771).

Gloriosa, 2 ♀.

Pyralidæ.

PYRAUSTINÆ.

Zinckenia fascialis, Cram. Pap. Exot. iv. pl. cccxcviii. fig. O (1783).

Gloriosa, 1 ♂, 1 ♀.

Pionea holoxuthalis, sp. n.

♀. Orange-yellow; palpi fulvous yellow, white at base; pectus and legs white, the fore and mid tibiæ yellow, the fore tibiæ with slight black band at extremity, the second and third joints of tarsi brown. Fore wing with faint minutely waved postmedial reddish line, oblique from costa to vein 5, excurved to vein 3, then bent inwards; traces of a curved reddish subterminal line; cilia with faint reddish medial line and whitish tips; the lines sometimes quite obsolete. Hind wing rather paler yellow; the cilia with faint reddish medial line and whitish tips.

COMORO IS., Mayotta, 1 ♀; GLORIOSA, 3 ♀ type. *Exp.* 20 mm.

SEYCHELLES IS.

Arctiadæ.

ARCTIANÆ.

Utetheisa elata, Fabr. Ent. Syst. p. 440 (1798).

Var. *diva*, Mab.—A very black form; hind wing with the white reduced to a patch in and below end of cell.

Mahé, 2 ♀.

Noctuidæ.

ACRONYCTINÆ.

Spodoptera abyssinia, Guen. Noct. i. p. 154 (1852).

Mahé, 2 ♀.

CATOCALINÆ.

Chalciope hyppasia, Cram. Pap. Exot. iii. pl. ccl. E (1779).

Mahé, 3 ♂, 1 ♀; Félicité, 2 ♂; The Cerf, 1 ♂, 2 ♀.

Remigia repanda, Fabr. Ent. Syst. iii. (2) p. 49 (1792).

Mahé, 1 ♂; Félicité, 1 ♀.

Remigia undata, Fabr. Syst. Ent. vi. p. 601 (1775).

Mahé, 5 ♂, 2 ♀; Félicité, 3 ♂, 1 ♀.

PLUSIANÆ.

Plusia chalcytes, Esp. Schmett. pl. cxli. fig. 3 (1789).

Mahé, 1 ♂, 1 ♀.

NOCTUINÆ.

Cosmophila erosa, Hübn. Zutr. Samml. exot. Schmett. ii. (19) figs. 287, 288 (1827).

Mahé, 1 ♂.

HYPENINÆ.

Hypena conscitalis, Wlk. xxxiv. 1509 (1865).

The Cerf, 1 ♀.

HYBLÆINÆ.

Hyblava puera, Cram. Pap. Exot. pl. ciii. D, E (1779).

Mahé, 1 ♀.

Hypsidæ.

Deilemera seychellensis, sp. n.

♀. Head and thorax black; palpi with the first two joints orange; sides of frons and a bar above it, spots behind antennæ, edges of tegulæ and patagia, sides of thorax and patches on pectus grey-white; legs grey, streaked with black; abdomen grey, with dorsal and lateral series of small black spots, the anal tuft orange, the ventral surface whitish. Fore wing pale brown, the basal half with slight whitish streaks on the veins, two in cell, two in submedian interspace, and one on inner margin; an oblique white band from costa beyond middle to termen at submedian fold, its inner edge rather irregular, its outer waved, the veins of terminal half dark; the interspaces at apex sometimes whitish; cilia whitish towards apex. Hind wing white, with broad pale brown terminal band, with curved waved inner edge, and the veins on it dark.

Mahé, 3 ♀. *Exp.* 50 mm.

Argina astræa, Drury, Ill. Exot. Ins. ii. p. 11, pl. vi. fig. 3 (1770).

Mahé, 1 ♂, 1 ♀.

Sphingidæ.

Acherontia atropos, Linn. Syst. Nat. i. p. 490 (1758).

Mahé, 2 ♀.

Daphnis nerii, Linn. Syst. Nat. i. p. 490 (1758).

Mahé, 1 ♀.

Chærocampa osiris, Dalm. Anal. Ent. p. 48 (1823).

Mahé, 1 ♂, 1 ♀.

Cephonodes hylas, Linn. Mant. p. 539 (1771).

Mahé, 1 ♂.

Pyralidæ.

CRAMBINÆ.

Culladia admigratella, Wlk. xxvii. 192 (1863).

Praslin, 1 ♂.

PYRALINÆ.

Pyralis farinalis, Linn. Syst. Nat. ed. x. p. 226 (1758).

Praslin, 1 ♂, 1 ♀.

HYDROCAMPINÆ.

Bradina aureolalis, de Joan. Bull. Soc. Ent. Fr. 1899, p. 198.

Praslin, 4 ♂, 1 ♀.

PYRAUSTINÆ.

Marasmia trebiusalis, Wlk. xviii. 718 (1859).

The Cerf, 1 ♂.

Marasmia trapezalis, Guen. Delt. & Pyr. p. 200 (1854).

The Cerf, 1 ♀.

Pagyda traducalis, Zell. Lep. Caffr. p. 54 (1852).

The Cerf, 1 ♀.

Sylepta derogata, Fabr. Syst. Ent. p. 641 (1775).

The Cerf, 1 ♀.

Glyphodes sericea, Drury, Ins. ii. p. 9, pl. vi. fig. 1 (1770).

Mahé, 1 ♂.

Glyphodes indica, Saund. Trans. Ent. Soc. 1851, p. 163,
pl. xii. figs. 5, 6, 7.

Mahé, 2 ♂.

Glyphodes sinuata, Fabr. Spec. Ins. ii. p. 267 (1781).

Mahé, 1 ♀.

DESCRIPTIONS OF NEW SPECIES FROM VARIOUS LOCALITIES.

Noctuidæ.

CATOCALINÆ.

Genus ACANTHODELTA, nov.

Proboscis fully developed; palpi obliquely upturned, the second joint reaching vertex of head and fringed with hair in front, the third moderate, rather porrect; frons smooth, with tuft of hair; eyes large, round; antennæ of male laminate; head and thorax clothed with hair only and without crests; all the tibiæ spined and smoothly scaled; pectus with long hair; abdomen smoothly scaled and without crests. Fore wing with the apex rectangular, the termen obliquely curved, crenulate; vein 3 from well before angle of cell; 5 from above angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Fore wing with the costa extending well beyond tornus of fore wing, the termen crenulate; vein 3 from before angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 approximated to the cell to beyond middle.

Acanthodelta distigma, sp. n.

♂. Head and thorax fuscous brown with a reddish tinge; antennæ white above; tibiæ and tarsi greyish; abdomen greyish irrorated with brown. Fore wing fuscous brown irrorated with grey, the costal area tinged with purplish; a black discoidal point; a diffused white fascia in submedian fold from before to well beyond middle, with a postmedial black point on it; a slight white streak above vein 5 from

cell to towards termen; a terminal series of black striæ. Hind wing fuscous brown slightly irrorated with grey; the underside greyish thickly irrorated with brown; a black discoidal point.

CAPE COLONY, summit of Table Mt., 1 ♂ type. *Exp.* 42 mm.

NOCTUINÆ.

Genus MELAPERÀ, nov.

Proboscis aborted, minute; palpi with the second joint straight, porrect, extending about the length of head, the third upturned, very long and reaching above vertex of head, clothed with scales; frons smooth; eyes large, rounded; antennæ of female with bristles and cilia, roughly scaled above and with long hair on basal joint; head and thorax clothed with rough scales and hair; tibiæ moderately fringed with hair; abdomen with rough hair at base and loose crests of long scales on first two segments. Fore wing with the apex rounded, the termen evenly curved; veins 3 and 5 from near angle of cell; 6 from upper angle; 9, 10 both anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell at middle.

(*Singara*) *hyppoides*, Butl., belongs to an allied genus with the proboscis fully developed and the palpi upturned, the third joint tufted with hair behind.

(*Arctia*) *bicolor*, Mab., probably belongs to this latter genus, both from Madagascar.

Nearest to *Rhanidophora*, Wllgrn.

Melapera roastis, sp. n.

♀. Head and thorax orange-yellow; palpi black, yellow below at base; tegulæ with pinkish-white patches; patagia pale pink except at base; legs with the fore tibiæ on inner side, femoro-tibial joints, spurs, and tarsi black; abdomen orange-yellow, dorsally crimson except at base and extremity. Fore wing pale pink suffused with white, the terminal area yellow. Hind wing brighter pink, the terminal area yellow.

MADAGASCAR, Forêt d'Ambre, 1 ♀ type. *Exp.* 62 mm.

ERASTRIANÆ.

Eublemma glaucizona, sp. n.

Head and thorax pale ochreous brown, thorax suffused with grey except in front; pectus white; legs greyish; abdomen pale ochreous. Fore wing pale ochreous, tinged with yellow-brown towards the oblique medial line, the costal area dark towards base; a black point in middle of cell; a grey band beyond the medial line with black-brown patch beyond lower angle of cell, with whitish patch above it before the slight white postmedial line, which is bent outwards below costa, excurved to vein 4, then incurved, a red-brown band beyond it before the indistinct greyish subterminal line, with some black scales on its outer edge; terminal area brown suffused with grey, the apex brown with a whitish striga below it; cilia whitish, with fine brown lines through them. Hind wing grey; cilia white at tips; the underside white irrorated with brown, a dark discoidal spot and terminal series of black points.

CAPE COLONY, Simonstown (*de la Garde*), 1 ♂, Table Mt., 1500' (*Meade-Waldo*), 2 ♂ type. *Exp.* 20 mm.

Allied to *E. parva*.

Pyralidæ.

SCHÆNOBIANÆ.

Patissa vagilinealis, sp. n.

♂. White; palpi, maxillary palpi, and sides of frons black; fore femora, tibiæ, and first joint of tarsi black, the mid femora and tibiæ tinged with black. Fore wing with the base of costa black, conjoined to a small subbasal spot in cell; the lines yellow-brown irrorated with fuscous; antemedial line oblique from cell to inner margin; postmedial line straight from costa to vein 5, then retracted to below costa above angle of cell, then obliquely sinuous to origin of vein 2 and again sinuous to inner margin, passing above a small black spot at lower angle of cell; subterminal line slightly incurved below costa and ending at vein 3, on which it forms a wedge-shaped patch; a terminal series of yellowish points. Hind wing with yellow-brown markings irrorated with fuscous; some scales on median nervure; an interrupted antemedial line from cell to inner margin formed of two spots; postmedial line stronger and angled outwards at vein 4, then angled inwards to lower angle of cell and again excurved; subterminal line angled

inwards at veins 6 and 2, below which it ends on termen; a terminal series of points from apex to vein 2.

MADAGASCAR, Forêt d'Ambre, 2 ♂ type. *Exp.* 10-16 mm.

HYDROCAMPINÆ.

Ambia heptopalis, sp. n.

♂. Head brownish, the palpi and antennæ fulvous; thorax brownish white, the tarsi ringed with fuscous; abdomen whitish, with slight fuscous segmental bands. Fore wing whitish, tinged with golden yellow and slightly irrorated with fuscous, especially on costal area; two blackish antemedial points on costa and traces of a sinuous antemedial line; traces of a dark discoidal lunule; two curved dark subterminal lines from costa to vein 2, with the area beyond them white; some black points on termen; cilia golden yellow, with slight dark line at middle and black points at tips. Hind wing yellowish white, slightly irrorated with fuscous; a tuft of long black hair at lower angle of cell; a blackish postmedial line oblique from costa to submedian fold, where it is angled inwards, then excurved; a terminal orange band defined on inner side by a brown line bent outwards to termen near tornus, and with seven black points on termen from below apex to submedian fold, with silver scales between them; cilia whitish.

BRAZIL, Itaparica (*Meade-Waldo*), 1 ♂ type. *Exp.* 16 mm.

Allied to *A. metalophota*, Hmpsn.

PYRAUSTINÆ.

Pilocrocis xanthostictalis, sp. n.

♂. Head and thorax red-brown with a greyish tinge; palpi white at base; sides of frons with whitish streaks; vertex of head whitish; pectus and legs white, the fore tibiæ with brown bands at extremity; abdomen white, dorsally suffused with red-brown. Fore wing red-brown; a dark antemedial line, excurved from costa to submedian fold, then incurved, with a yellow band on its inner side from below costa to inner margin; a black spot in middle of cell and discoidal lunule, with quadrate white patch between them; a dark postmedial line, incurved from below costa to vein 5, where it is bent outwards, at vein 2 retracted to lower angle of cell, then recurved, with trifid dentate yellow mark on its outer edge below costa, three minute dentate spots between veins

5 and 2, and a lunule below angle of cell; a fine yellowish line at base of cilia. Hind wing yellow; a dark discoidal bar and some brown suffusion below end of cell; postmedial line brown, strongly bent outwards between veins 5 and 3, then retracted to vein 5 and forming a loop, then oblique to inner margin; a broad brown terminal band, its inner edge bent outwards and dentate between veins 5 and 2; cilia brown, with yellowish line at base from apex to submedian fold, then white, with some brown at base towards tornus.

MADAGASCAR, Forêt d'Ambre, 1 ♂ type. *Exp.* 26 mm.

Sylepta trifidalis, sp. n.

♂. Head and thorax bronze-brown; palpi black, white below; pectus and legs whitish; abdomen bronze-brown, the anal tuft and ventral surface white. Fore wing bronze-brown, with a slight purplish gloss; antemedial line dark, oblique; a quadrate hyaline spot in end of cell, followed by an indistinct dark discoidal spot, with pale bar on discocellulars; postmedial line dark, with trifid yellowish-white mark on its outer edge from costa, then slightly defined by whitish, slightly curved from costa to vein 2, then retracted to below angle of cell, and again slightly excurved; cilia with a fine yellowish-white line at base, followed by a dark line, the tips greyish. Hind wing bronze-brown with a slight purplish tinge, the base pale; a slight dark discoidal lunule; postmedial line dark, slightly defined by whitish on outer side, excurved between veins 5 and 2, then retracted to below angle of cell and oblique to tornus; cilia with dark line at base and whitish tips.

BE. E. AFRICA, Mukuniu (*Betton*), 1 ♂ type; ADEN (*Meade-Waldo*), 1 ♀. *Exp.* 24 mm.

Archernis flavidalis, sp. n.

♀. Orange-yellow; head paler; fore femora towards extremity, tibiae and tarsi banded with blackish. Fore wing with traces of brownish diffused antemedial line; traces of spots in end of cell and on discocellulars; a rather more distinct postmedial line bent outwards between veins 5 and 2, then retracted to below angle of cell, and ending in a fuscous spot on inner margin; traces of a maculate subterminal line. Hind wing rather paler, without markings.

NATAL, Durban, The Bluff, 1 ♀ type. *Exp.* 32 mm.

Pyrausta hæmapastalis, sp. n.

♂. Head and thorax deep ochreous, tinged with brown; palpi white below; abdomen deep ochreous; pectus, legs, and ventral surface of abdomen whitish. Fore wing orange-yellow; the basal area suffused with crimson; a diffused antemedial crimson line; an ill-defined discoidal bar; postmedial line forming a diffused crimson patch from costa to vein 3, then strongly incurved and becoming confluent with the antemedial line below cell; a diffused slightly sinuous subterminal band, confluent with the postmedial line at middle. Hind wing yellow; traces of a brownish postmedial line excurved between veins 5 and 2, then obsolete; a diffused brown terminal band rather broad at costa, narrowing to tornus; cilia whitish at tips.

BRAZIL, Itaparica, 3 ♂ type. *Exp.* 14 mm.

Pyrausta flavibrunnealis, sp. n.

♂. Head and thorax pale yellowish brown; frons with lateral white streaks; palpi white below; fore and mid tibiæ streaked with white, the tarsi and hind legs white; abdomen ochreous white. Fore wing narrow, the costa rather concave; ochreous yellow, the costal area suffused with brown and the costal edge white beyond middle; antemedial line brown, rather diffused, oblique from costa to submedian fold; rather diffused brown spots in end of cell and on discocellulars conjoined to the brown costal area; postmedial line brown, rather diffused, excurved from costa to vein 2, then retracted to lower angle of cell and erect to inner margin; terminal area suffused with brown; cilia white at tips. Hind wing ochreous yellow; traces of a diffused brownish postmedial line on costal half; termen suffused with brown except towards tornus; cilia white.

BRAZIL, Bahia, 1 ♂ type. *Exp.* 16 mm.

LXXVIII.—*On the Occurrence of the Hydroid Cordylophora in Egypt.* By CHARLES L. BOULENGER, B.A.

DURING our recent expedition to the Fayûm Province of Egypt, Dr. Cunnington and I found the hydroid *Cordylophora* to occur in great abundance in the brackish waters of Lake Qurun.

Since our return I have carefully examined the specimens we collected and compared them with material from the